IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in this application:

1-46 (Canceled)

47 (Currently Amended). A method of fabricating an EL display device, said method comprising the steps of:

forming a gate wiring on an insulating surface;

forming a gate insulating film and an amorphous semiconductor film into a laminate sequentially without exposing them to an atmosphere on the gate wiring;

irradiating the amorphous semiconductor film with at least a light selected from the group consisting of an infrared light and an ultraviolet light to crystallize the amorphous semiconductor film into a crystalline semiconductor film in an oxidizing atmosphere and to form an oxide film at a same time;

covering a first portion of the crystalline semiconductor film with a first mask;

providing an impurity element into second portions of the crystalline semiconductor film at a first concentration through the oxide film using the first mask;

providing the impurity element into third portions of the crystalline semiconductor film at a second concentration through the oxide film using a second mask,

wherein the second concentration is higher than the first concentration,

wherein the first portion of the crystalline semiconductor film is a channel forming region while the third portions of the crystalline semiconductor film are source and drain regions,

wherein fourth portions of the crystalline semiconductor film which are not provided with the impurity at the second concentration but only the first concentration are low concentration impurity regions.

48 (Previously presented). A method according to claim 47,

wherein contaminants on a surface of the gate insulating film are reduced by active hydrogen or hydrogen compound before forming the amorphous semiconductor film.

49 (Previously presented). A method according to claim 47, further comprising a step of forming a silicon nitride film before forming the gate insulating film.

50 (Previously presented). A method according to claims 47, further comprising a step of forming a laminate film including BCB (benzocyclobutene) as a part of the gate insulating film.

51 (Previously presented). A method according to claim 47,

wherein the gate insulating film, the amorphous semiconductor film and the oxide film are formed in a same chamber.

52 (Previously presented). A method according to claim 47,

wherein the light is a laser light.

53 (Previously presented). A method according to claim 47,

wherein the impurity is at least one selected from the group consisting of a trivalent impurity

and a pentavalent impurity.

54-55 (Canceled)

56 (Currently Amended). A method of fabricating a semiconductor device comprising:

forming a gate wiring over a substrate;

forming a gate insulating film and an amorphous semiconductor film sequentially over the gate wiring in a film formation apparatus;

irradiating the amorphous semiconductor film with a laser light to crystallize the semiconductor film in an oxidizing atmosphere, wherein an oxide film is formed on the semiconductor film as a result of the irradiation of the laser light;

covering a first portion of the crystallized semiconductor film with a first mask;

introducing an impurity element into second portions of the crystallized semiconductor film at a first concentration through the oxide film using the first mask; and

introducing the impurity element into third portions of the crystallized semiconductor film through the oxide film using a second mask at a second concentration larger than the first concentration, wherein said second mask extends beyond side edges of the first portion,

wherein the first portion of the crystallized semiconductor film is a channel forming region while the third portions of the crystallized semiconductor film are source and drain regions, and

wherein fourth portions of the crystallized semiconductor film which are located between the first portion and the third portions are low concentration impurity regions.

57 (Previously presented). A method according to claim 56 further comprising a step of forming a silicon nitride film before forming the gate insulating film.

58 (Previously presented). A method according to claim 56, wherein said gate insulating film comprises BCB (benzocyclobutene).

59 (Previously presented). A method according to claim 56, wherein the impurity is at least one selected from the group consisting of a trivalent impurity and a pentavalent impurity.

60 (Previously presented). A method according to claim 56, wherein said amorphous semiconductor film is irradiated with the laser light in an oxidizing atmosphere.

61 (Currently Amended). A method of fabricating a semiconductor device comprising:

forming a gate wiring over a substrate;

forming a gate insulating film and an amorphous semiconductor film sequentially over the gate wiring in a film formation apparatus;

crystallizing the amorphous semiconductor film by RTA in an oxidizing atmosphere, wherein an oxide film is formed on the semiconductor film as a result of the RTA;

covering a first portion of the crystallized semiconductor film with a first mask;

introducing an impurity element into second portions of the crystallized semiconductor film at a first concentration through the oxide film using the first mask; and

introducing the impurity element into third portions of the crystallized semiconductor film through the oxide film using a second mask at a second concentration larger than the first concentration, wherein said second mask extends beyond side edges of the first portion,

wherein the first portion of the crystallized semiconductor film is a channel forming region while the third portions of the crystallized semiconductor film are source and drain regions, and

wherein fourth portions of the crystallized semiconductor film which are located between the first portion and the third portions are low concentration impurity regions.

62 (Previously presented). A method according to claim 61 further comprising a step of forming a silicon nitride film before forming the gate insulating film.

63 (Previously presented). A method according to claim 61, wherein said gate insulating film comprises BCB (benzocyclobutene).

64 (Previously presented). A method according to claim 61 wherein the impurity is at least one selected from the group consisting of a trivalent impurity and a pentavalent impurity.

65 (Previously presented). A method according to claim 61 wherein said RTA is carried out in an oxidizing atmosphere.

66 (Previously presented). A method of fabricating an EL display device comprising:

forming a gate wiring over a substrate;

forming a first gate insulating film, an amorphous semiconductor film and a second insulating film sequentially over the gate wiring in this order in a film formation apparatus;

irradiating the amorphous semiconductor film with light to crystallize the semiconductor film through the second insulating film;

covering a first portion of the crystallized semiconductor film with a first mask;

introducing an impurity element into second portions of the crystallized semiconductor film at a first concentration using the first mask; and

introducing the impurity element into third portions of the crystallized semiconductor film using a second mask at a second concentration larger than the first concentration, wherein said second mask extends beyond side edges of the first portion,

wherein the first portion of the crystallized semiconductor film is a channel forming region while the third portions of the crystallized semiconductor film are source and drain regions, and

wherein fourth portions of the crystallized semiconductor film which are located between the first portion and the third portions are low concentration impurity regions.

67 (Previously presented). A method according to claim 66, wherein said light is a laser light.

68 (Previously presented). A method according to claim 66, wherein said light is irradiated by RTA.

69 (Previously presented). A method according to claim 66 further comprising a step of forming a silicon nitride film before forming the gate insulating film.

70 (Previously presented). A method according to claim 66, wherein said gate insulating film comprises BCB (benzocyclobutene).

71 (Previously presented). A method according to claim 66, wherein the impurity is at least one selected from the group consisting of a trivalent impurity and a pentavalent impurity.

72 (Previously presented). A method according to claim 66, wherein said amorphous semiconductor film is irradiated with the laser light in an oxidizing atmosphere.

73 (Previously presented). A method of fabricating a semiconductor device comprising:

forming a gate wiring over a substrate;

forming a first gate insulating film, an amorphous semiconductor film and a second insulating film sequentially over the gate wiring in this order in a film formation apparatus;

irradiating the amorphous semiconductor film with light to crystallize the amorphous semiconductor film through the second insulating film;

covering a first portion of the crystallized semiconductor film with a first mask;

introducing an impurity element into second portions of the crystallized semiconductor film at a first concentration using the first mask; and

introducing the impurity element into third portions of the crystalline semiconductor film using a second mask at a second concentration larger than the first concentration, wherein said second mask extends beyond side edges of the first portion,

wherein the first portion of the crystallized semiconductor film is a channel forming region while the third portions of the crystallized semiconductor film are source and drain regions, and

wherein fourth portions of the crystallized semiconductor film which are located between the first portion and the third portions are low concentration impurity regions.

74 (Previously presented). A method according to claim 73, wherein said light is a laser light.

75 (Previously presented). A method according to claim 73, wherein said light is irradiated by RTA.

76 (Previously presented). A method according to claim 73 further comprising a step of forming a silicon nitride film before forming the gate insulating film.

77 (Previously presented). A method according to claim 73, wherein said gate insulating film comprises BCB (benzocyclobutene).

78 (Previously presented). A method according to claim 73, wherein the impurity is at least one selected from the group consisting of a trivalent impurity and a pentavalent impurity.

79 (Canceled)

80. (New) A method according to claim 47 wherein said oxidizing atmosphere is an air.

81. (New) A method according to claim 56 wherein said oxidizing atmosphere is an air.

82. (New) A method according to claim 61 wherein said oxidizing atmosphere is an air.

83. (New) A method according to claim 47 wherein said oxidizing atmosphere includes oxygen.

84. (New) A method according to claim 56 wherein said oxidizing atmosphere includes oxygen.

85. (New) A method according to claim 61 wherein said oxidizing atmosphere includes oxygen.